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## Remarks:

Regarding the rejection of claims 3, 5, 6, 7, and 8 under 35 USC 112, 2<sup>nd</sup> paragraph: The applicant enters amendments to the claims which are believed to fully address and overcome the grounds upon which the Examiner's rejection is based.

Reconsideration of the propriety of the rejection of the aforementioned claims, and withdrawal of the rejection is solicited.

Regarding the rejection of claims 1-2, 4, 11, 12, 14-18 under 35 USC 102(b) in view of US 5644866 to Katsuda;

The applicant traverses the rejection of the claims in view of the Katsuda reference, particularly in light of the amended claims presented in this paper.

Whereas the Examiner indicates that the Katsuda reference discloses "... a heating device comprising a laminar of polymer resin film material having thin film characteristics applied to laminars of insulating material, a rechargeable battery and a wick having a heating means attached in proximity to the wick..." the applicant believes that the presently amended claims are patentably distinguishable over the Katsuda reference.

A skilled artisan reviewing the Katsuda device would be taught that Katsuda's heating means is limited to an "organic PTC" consisting of a mixture of thermoplastic polyolefin resin and carbon. The same skilled artisan reviewing Katsuda's would understand that Katsuda cites as his discovery the use of carbon-based *instead of* known-art inorganic-material-based PTC materials in the production of a heating means which would operate from storage batteries at between 2-7 volts, and which would produce a surface temperature in the range of 90-130°C; such carbon-based PCT materials would be useful as a heating means to volatilize certain insecticide compositions particularly those including those based on pyrethroids.

Katsuda appears to only vaguely disclose other forms of positive temperature coefficient thermistors, and it is fair to say that the Katsuda disclosure is properly limited in its scope to only what is actually disclosed as would be understood by a skilled artisan. Specifically Katsuda's disclosure is properly limited to what he actually discloses and depicts, namely the embodiments of Figure 3 and Figure 4. Katsuda makes no provision for the use of resistance wires, nor conductive inks nor layers of one or both of these material in his PCT heaters, as is now presently claimed by the applicant in their invention.

With regard to the Examiner's grounds of rejection under 35 USC §102(b), that statute holds in relevant part that a person shall be entitled to a patent unless "the invention was ... in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." Unpatentability based on "anticipation" requires that the invention is not in fact new. See Hoover Group, Inc. v. Custom Metalcraft, Inc., 66 F.3d 299, 302, 36 USPQ2d 1101, 1103 (Fed. Cir. 1995) ("lack of novelty (often called 'anticipation') requires that the same invention, including each element and limitation of the claims, was known or used by others before it was invented by the patentee"). Anticipation requires that a single reference describe the claimed invention with sufficient precision and detail to establish that the subject matter existed in the prior art. See, In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). It is the present applicants' position that this standard has not been met. As noted, Katsuda makes no provision for the use of resistance wires, nor conductive inks nor layers of one or both of these material in his PCT heaters, as is now presently claimed by the applicant in their invention. Katusda fails to disclose "each element and limitation of the claims" which is required in order to maintain a proper rejection under 35 USC §102(b). Accordingly reconsideration of the propriety of the outstanding rejection and its withdrawal is solicited.

Regarding the rejection of claims 9, 13 and 19-22 under 35 USC 103(a)) in view of US 5644866 to Katsuda:

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The applicant traverses the rejection of the claims in view of the Katsuda reference, particularly in light of the amended claims presented in this paper.

For the sake of brevity, the applicant repeats and incorporates by reference their remarks made above with respect to their rebuttal of the 35 USC §102(b) rejection as being applicable to the present grounds of rejection.

Whereas the Examiner asserts that the subject matter of (prior) claims 9, 13 and 19-26 would be obvious under 35 USC 103(a), the applicant disagrees.

First the applicant points out that claim 1 has been amended and is believed to be allowable over the prior art of record. Claims 9, 13 and 19-26 all ultimately depend from claim 1 and are thus also believed to be allowably as inheriting the limitations of the independent claim.

Secondly the applicant traverses the Examiner's rejection of these claims.

The Examiner is respectfully reminded that with regard to any rejection based on obviousness under 35 USC §103(b), MPEP section 2143 states that three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. See, *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); *In re Rouffet*, 149 F.3d 1350, 1355-56 [47 USPQ2d 1453] (Fed. Cir. 1998).

With respect to applicant's present claim 9, a review of the entirely of the Katsuda reference reveals nothing to the skilled artisan concerning the thickness of Katuda's "radiation plate (3)" or "organic PTC (4)" other than the depictions of Katsuda's Figs. 1 – 6. The most relevant figures, Fig. 1 depicts the radiation plate (3) and "organic PTC (4)" depicted with respect to a "pulp mat (1)" which is recited to have a thickness of 1 mm. By inspection and comparison, the thickness of each of the radiation plate (3) and "organic PTC (4)" are in excess of 1 mm.

With respect to the applicant's present claim 13, the applicant points out that claim 13 depends from claim 1 which is believed to be allowable.

With respect to the Examiner's rejection of claims 19 - 26, the applicant points out that a review of the Katsuda disclosure supports their position that the Katsuda device is a device which continuously operates once energized. Katsuda notes this technical feature in several places, e.g., column 5, lines 6-11; column 6, lines 58-64. Katsuda does not then disclose nor does he appear to contemplate the use of an intermittent control means whereby user switchable time periods or time intervals can be set. The applicant disagrees with and traverse's the Examiner's position that such would be trivial design choices in light of Katsuda's device as the Examiner has failed to provide any further reference or document which discloses this feature, and/or reasoning why a skilled artisan would have any motivation to alter the Katsuda device in order to provide intermittent operation. Indeed, it is suggested that Katusda's "Test Example 1" would suggest that in order to provide the insecticidal benefit lauded by Katsuda, it would appear essential that Katusda's device operate both continuously, and within a limited temperature range of 90°C - 140°C in order to provide sustained performance against mosquitoes. (See Katsuda, col. 6, lines 57 - 62.) Any modification as suggested by the Examiner would appear only to detract from the Katsuda device, as intermittent heating would likely result in insufficient delivery of Katusda's limited list of insecticides to an ambient environment. As such, it can be stated that Katsuda then "teaches away" from

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intermittent heating of his organic PTC and therefore cannot be used as a basis for the

Examiner's rejection of claims 19 - 26.

In view of the foregoing, reconsideration of the propriety of the Katsuda reference against

the presented claims, and reconsideration of the propriety of and the withdrawal of that

document from further consideration is requested.

An early indication of the allowability of the present application and claims, by issuance

of a Notice of Allowance and Issue Fee due is respectfully requested.

Should the Examiner believe that telephonic communication will advance the prosecution

of the present application they are invited to telephone the undersigned at their

convenience.

Conditional Authorization for Fees

Should any further fee be required by the Commissioner in order to permit the timely

entry of this paper, the Commissioner is authorized to charge any such fee to Deposit

Account No. 14-1263.

Respectfully Submitted;

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## Certification of Telefax Transmission:

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